

## **Hoplothrips karnyi Hood (Thysanoptera).**

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Numerous specimens of this interesting *Hoplothrips* have been forwarded to me for identification during the last two years, with host plant, locality and collector records as follows: "Tree fungus", Newark, New Jersey, (Wm. Trager), *Chrysanthemum leucanthemum*, Hamden, Connecticut, (W. E. Britton), Northern Spy Apple, Fair Haven, Vermont, (H. N. Bean), Fungus on dead Beech stump, Kingsville, Ohio, (J. C. Pallister), Fungus on dead log, Cold Spring Harbor, Long Island, (H. Friedman), under bark, Amherst, Massachusetts, (A. H. Salmon), on cherry and peach stumps, Indianapolis, Indiana, (H. F. Dietz), under bark of cherry tree, Brooklyn, New York, (W. E. Smith).

The confusion that has arisen in the proper identification of this species has been brought about partly because there are two distinct forms of male, and a noticeable variation in size of the female. Dr. H. Priesner, of Austria, has given the name *odymer* for male specimens having greatly enlarged prothorax and forelegs, and *gynacoid* for those having prothorax and forelegs normally developed. I have recently named a species in another genus, *Haplothrips biformis*, from Abyssinia, Africa, which shows the same type variation.

I have selected eighty ♀♀ for the purpose of comparison and measurement from among the collections above listed, 48 macroptera, 32 brachyptera and 34 ♂♂, 5 macroptera *gynacoid*, 5 brachyptera *gynacoid* and 24 brachyptera *odymer*, Macroptera *odymer* forms have not been observed in this species. Macropterous males are equally as common as brachypterous males in the *odymer* form of *Haplothrips biformis*, Moulton.

There is a marked variation in total body length, from 2 mm. to 4 mm., especially among the females, with prevailing size 2.5 to 3.5 mm. Much of this variation is due to a contracted or distended condition of the abdomen. The connecting tissue between the segments in a distended specimen is as long,

if not longer, than the tergites themselves, while in a contracted specimen the segments are more or less telescoped, connecting tissue is folded and largely concealed and length of abdomen is much less than half of that in a normally distended specimen.

All of the characters which have been used heretofore in an attempt to designate two different species are insufficient, and are overcome by the normal variation within the species itself when we recognize the *oedemer* and *gynacoid* forms.

HOPLOTHIRIPS KARNYI Hood.

*Trichothrips karnyi* Hood, Insecutor Inscitiae Menstruus, ii, No. 2, 20, 1914.

*Trichothrips karnyi major* Hood, Proc. Biol. Soc. Wash., xxvii, 153, 1914.

*Trichothrips karnyi karnyi* Hood, Proc. Biol. Soc. Wash., xxvii, 153, 1914.

*Hoplothrips karnyi major* Hood, The Ent., xlviii, 105, 1915.

*Hoplothrips karnyi karnyi* Hood, Insec. Insc. Mens., v. Nos. 4-6, 61, 1917.

*Trichothrips drakei* Watson, Bull. Brooklyn Ent. Soc., xvi, 78, 1921.

*Trichothrips ulmi* Weiss & Lott, Bull. Brooklyn Ent. Soc., xviii, 94, 1923.

*Hoplothrips major* Weiss, Ent. News, xxxvii, 84, 1926.

*Hoplothrips major* Hood, Ent. Americana, vii, 226, 1927.

*Hoplothrips karnyi major* Hood, Ent. News, xxxviii, 113, 1927.

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The Choice of Bees by Absolute or Relative Characteristics  
(Hymen.: Apidae).

In the great majority of experiments made by Köhler upon chicks, the chick's choice between two shades of grey was determined by the *relative* characteristics of the training brightness. Bees if trained to choose with regard to the difference of two shades of greys determine their choice by the *absolute* brightness of the training paper. If in a transference in positive direction the training paper remains visible, they go to that paper as before; if in a transference in negative direction the training paper is absent, they do not choose the paper that has the same relative place in the new combination as the training paper had in the old one, but sit down about equally on both papers and in a smaller number than they did when the training paper was present. J. A. BIERENS DE HAAN (in *Tijdschrift der Nederlandsche Dierkundige Vereeniging* (3) 1, 2, Leiden, Sept., 1928).